



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0513; Project Identifier MCAI-2021-01162-T; Amendment 39-22241; AD 2022-24-01]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. This AD was prompted by reports that the thrust reverser correction factors presented in certain airplane flight manual (AFM) performance charts for landing on contaminated runways do not provide sufficient margin for stopping distances in certain conditions. This AD requires revising the existing AFM to correct the affected performance charts. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0513; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday

through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Bombardier, Inc., Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; Internet bombardier.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at regulations.gov under Docket No. FAA-2022-0513.

FOR FURTHER INFORMATION CONTACT: Gabriel Kim, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes. The NPRM published in the *Federal Register* on May 9, 2022 (87 FR 27533). The NPRM was prompted by AD CF-2021-35, dated October 26, 2021, issued by Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada (referred to after this as the MCAI). The MCAI states the thrust reverser

correction factors presented in certain AFM performance charts for landing on contaminated runways do not provide sufficient margin for stopping distances in certain conditions. If not corrected, use of the affected performance charts could lead to longitudinal runway excursions.

In the NPRM, the FAA proposed to require revising the existing AFM to correct the affected performance charts. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2022-0513.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from TCCA. The following presents the comment received on the NPRM and the FAA's response.

Request for Updating the AFM Revision Number

TCCA requested that the reference to Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021, be updated to Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022; and the reference to Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021, be updated to Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022. TCCA stated that Revisions 40 and 41 introduced errors in Figures 07-35-02 and 07-35-04, which have been corrected in Revision 42.

The FAA partially agrees. The FAA does not agree with mandating Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated

May 19, 2022; and Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022, in this AD. TCCA issued CF-2022-49 on August 23, 2022 (TCCA AD CF-2022-49) to mandate the incorporation of Figure 07-35-02 of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022; and Figure 07-35-04 of Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 202; which are in supplement 35 of the AFMs. TCCA AD CF-2022-49 also added airplanes to the applicability. In order to mandate Revision 42 of these AFMs, the FAA would need to issue a supplemental NPRM.

The FAA does not consider that delaying this action is warranted. Only paragraphs (g)(3)(viii) and (g)(5)(viii) of the proposed AD refer to supplement 35 of the AFMs specified in TCCA AD CF-2022-49. However, the proposed AD specifies to incorporate Revision 39 of the AFMs, which do not include any errors in the figures identified by TCCA. The proposed AD would not allow operators to incorporate the figures in Revision 40 and 41 of the AFM as those figures are not identical to the figures in Revision 39 of the AFMs specified in paragraphs (g)(3) and (5) of the proposed AD.

The FAA has added Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022, to paragraph (g)(3) of this AD; and Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022, to paragraph (g)(5) of this AD; as an optional source of service information for revising the AFM as specified in paragraphs (g)(3) and (5) of this AD. For this AD, operator may incorporate Figures 07-35-02 and 07-35-04 of either Revision 39 or 42 of the AFMs specified in paragraphs (g)(3)(viii) and (g)(5)(viii) of this AD.

The FAA is considering further rulemaking to correspond with TCCA AD CF-2022-49 and mandate incorporating Figure 07-35-02 of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022; and Figure 07-35-04 of Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed the following service information, which specifies revised AFM limitations and corrections to the performance charts for landing on contaminated runways. These documents are distinct since they apply to different airplane models and configurations.

The following sections and supplements are of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1, Revision 109, dated August 16, 2021. (For obtaining these sections and supplements of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2., Performance Corrections.

- Supplement 3, Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 5, Improved Climb Performance, of Chapter 7 – Supplements. This supplement includes Paragraph A., Improved Climb Performance, of Section 6 – Performance.

- Supplement 20, Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

The following sections and supplements are of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021. (For obtaining these sections and supplements of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2., Performance Corrections.

- Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 5 – Improved Climb Performance, of Chapter 7 – Supplements. This supplement includes Paragraph A., Improved Climb Performance, of Section 6 – Performance.

- Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

The following sections and supplements are of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021. (For obtaining these sections and supplements of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2., Performance Corrections.

- Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

- Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements. This supplement includes Paragraph A., Take-off on Wet Grooved Runways, of Section 6 – Performance.

The following sections and supplements are of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022. (For obtaining these sections and supplements of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2., Performance Corrections.

- Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

- Supplement 35 – Operation on Wet Grooved or Wet Porous Friction Course Runways, of Chapter 7 – Supplements. This supplement includes Paragraph A., Take-off on Wet Grooved or Wet PFC Runways, of Section 6 – Performance.

The following sections and supplements are of the Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, Revision 70, dated August 16, 2021. (For obtaining these sections and supplements of the Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2., Performance Corrections.

- Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

The following sections and supplements are of the Bombardier Global 5000 Featuring Global Vision Flight Deck (GVFD) Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021. (For obtaining these sections and supplements of the Bombardier Global 5000 Featuring Global Vision Flight Deck

Airplane Flight Manual - Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2, Performance Corrections.

- Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

- Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements. This supplement includes Paragraph A., Take-off on Wet Grooved Runways, of Section 6 – Performance.

The following sections and supplements are of the Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022. (For obtaining these sections and supplements of the Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.)

- Section 06-03 Take-Off Performance, of Chapter 6 – Performance. This section includes Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-

Off Performance – Slat Out/Flap 6°; and Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°.

- Section 06-08 Performance Data for Operation in Icing Conditions. This section includes Paragraph B., Effects of Cowl Anti-Ice On; and Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation; of Section 2., Performance Corrections.

- Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

- Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements. This supplement includes Paragraph B., Take-Off Field Length; and Paragraph G., Operation in Icing Conditions; of Section 6 – Performance.

- Supplement 35 – Operation on Wet Grooved or Wet Porous Friction Course Runways, of Chapter 7 – Supplements. This supplement includes Paragraph A., Take-off on Wet Grooved or Wet PFC Runways, of Section 6 – Performance.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 408 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
1 work-hour X \$85 per hour = \$85	\$0	\$85	\$34,680

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA’s authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-24-01 Bombardier, Inc.: Amendment 39-22241; Docket No. FAA-2022-0513;

Project Identifier MCAI-2021-01162-T.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc., Model BD-700-1A10 and BD-700-1A11 airplanes, certificated in any category, serial numbers 9001 through 9860 inclusive, 9862 through 9871 inclusive, 9873 through 9879 inclusive, 60005, 60024, 60030, 60032, 60037, 60043, 60045, and 60049.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight controls.

(e) Unsafe Condition

This AD was prompted by reports that the thrust reverser correction factors presented in certain airplane flight manual (AFM) performance charts for landing on contaminated runways do not provide sufficient margin for stopping distances in certain conditions. The FAA is issuing this AD to address incorrect AFM performance charts, which if not corrected, could lead to longitudinal runway excursions.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) AFM Revision

Within 30 days after the effective date of this AD: Do the applicable actions specified in paragraph (g)(1) through (5) of this AD.

(1) For Model BD-700-1A10 airplanes with a Global Express marketing designation: Revise the existing AFM to incorporate the information specified in paragraphs (g)(1)(i) through (viii) of this AD. These sections and supplements are of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1, Revision 109, dated August 16, 2021.

(i) Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°, of the Take-Off Performance section of Chapter 6 – Performance.

(ii) Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°, of the Take-Off Performance section of Chapter 6 – Performance.

(iii) Paragraph B., Effects of Cowl Anti-Ice On, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(iv) Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(v) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

(vi) Paragraph A., Improved Climb Performance, of Section 6 – Performance, of Supplement 5 – Improved Climb Performance, of Chapter 7 – Supplements.

(vii) Paragraph B., Take-Off Field Length, of Section 6 – Performance, of Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(viii) Paragraph G., Operation in Icing Conditions, of Section 6 – Performance, of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

Note 1 to paragraph (g)(1): For obtaining these sections and supplements of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.

(2) For Model BD-700-1A10 airplanes with a Global Express XRS marketing designation: Revise the existing AFM to incorporate the information specified in paragraphs (g)(2)(i) through (viii) of this AD. These sections and supplements are of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021.

(i) Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°, of the Take-Off Performance section of Chapter 6 – Performance.

(ii) Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°, of the Take-Off Performance section of Chapter 6 – Performance.

(iii) Paragraph B., Effects of Cowl Anti-Ice On, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(iv) Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(v) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

(vi) Paragraph A., Improved Climb Performance, of Section 6 – Performance, of Supplement 5 – Improved Climb Performance, of Chapter 7 – Supplements.

(vii) Paragraph B., Take-Off Field Length, of Section 6 – Performance, of Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(viii) Paragraph G., Operation in Icing Conditions, of Section 6 – Performance, of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

Note 2 to paragraph (g)(2): For obtaining these sections and supplements of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.

(3) For Model BD-700-1A10 airplanes with a Global 6000 marketing designation: Revise the existing AFM to incorporate the information specified in paragraphs (g)(3)(i) through (viii) of this AD. These sections and supplements are of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021 (Bombardier Global 6000 AFM, Revision 39); or Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022 (Bombardier Global 6000 AFM, Revision 42).

(i) Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°, of the Take-Off Performance section of Chapter 6 – Performance.

(ii) Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°, of the Take-Off Performance section of Chapter 6 – Performance.

(iii) Paragraph B., Effects of Cowl Anti-Ice On, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(iv) Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(v) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

(vi) Paragraph B., Take-Off Field Length, of Section 6 – Performance, of Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(vii) Paragraph G., Operation in Icing Conditions, of Section 6 – Performance, of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(viii) Paragraph A., Take-off on Wet Grooved Runways, of Section 6 – Performance, of Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements of Bombardier Global 6000 AFM, Revision 39; or Paragraph A., Take-off on Wet Grooved or Wet PFC Runways, of Section 6 – Performance, of Supplement 35 – Operation on Wet Grooved or Wet Porous Friction Course Runways, of Chapter 7 – Supplements of Bombardier Global 6000 AFM, Revision 42.

Note 3 to paragraph (g)(3): For obtaining these sections and supplements of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.

(4) For Model BD-700-1A11 airplanes with a Global 5000 marketing designation: Revise the existing AFM to incorporate the information specified in paragraphs (g)(4)(i) through (vii) of this AD. These sections and supplements are of the Bombardier Global

5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, Revision 70, dated August 16, 2021.

(i) Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°, of the Take-Off Performance section of Chapter 6 – Performance.

(ii) Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°, of the Take-Off Performance section of Chapter 6 – Performance.

(iii) Paragraph B., Effects of Cowl Anti-Ice On, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(iv) Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(v) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

(vi) Paragraph B., Take-Off Field Length, of Section 6 – Performance, of Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(vii) Paragraph G., Operation in Icing Conditions, of Section 6 – Performance, of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

Note 4 to paragraph (g)(4): For obtaining these sections and supplements of the Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.

(5) For Model BD-700-1A11 airplanes with a Global 5000 featuring Global Vision Flight Deck (GVFD) marketing designation: Revise the existing AFM to incorporate the information specified in paragraphs (g)(5)(i) through (viii) of this AD. These sections and supplements are of the Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021 (Bombardier Global 5000 GVFD AFM, Revision 39); or Bombardier 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022 (Bombardier Global 5000 GVFD AFM, Revision 42).

(i) Paragraph C., Wet Runway Take-Off Field Length, of Section 2., Take-Off Performance – Slat Out/Flap 6°, of the Take-Off Performance section of Chapter 6 – Performance.

(ii) Paragraph C., Wet Runway Take-Off Field Length, of Section 3., Take-Off Performance – Slat Out/Flap 16°, of the Take-Off Performance section of Chapter 6 – Performance.

(iii) Paragraph B., Effects of Cowl Anti-Ice On, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(iv) Paragraph C., Effects of Wing and Cowl Anti-Ice On/Ice Accumulation, of Section 2., Performance Corrections, of the Performance Data for Operation in Icing Condition section of Chapter 6 – Performance.

(v) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements.

(vi) Paragraph B., Take-Off Field Length, of Section 6 – Performance, of Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(vii) Paragraph G., Operation in Icing Conditions, of Section 6 – Performance, of Supplement 20 – Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements.

(viii) Paragraph A., Take-off on Wet Grooved Runways, of Section 6 – Performance, of Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements of Bombardier Global 5000 GVFD AFM, Revision 39; or Paragraph A., Take-off on Wet Grooved or Wet PFC Runways, of Section 6 – Performance, of Supplement 35 – Operation on Wet Grooved or Wet Porous Friction Course Runways, of Chapter 7 – Supplements of Bombardier Global 5000 GVFD AFM, Revision 42.

Note 5 to paragraph (g)(5): For obtaining these sections and supplements of the Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method

approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Additional Information

(1) Refer to TCCA AD CF-2021-35, dated October 26, 2021, for related information. This TCCA AD may be found in the AD docket at regulations.gov under Docket No. FAA-2022-0513.

(2) For more information about this AD, contact Gabriel Kim, Aerospace Engineer, Mechanical Systems and Administrative Services Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email 9-avs-nyaco-cos@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier Global Express Airplane Flight Manual – Publication No. CSP 700-1, Revision 109, dated August 16, 2021.

Note 6 to paragraph (j)(2)(i): This note applies to paragraphs (j)(2)(i) through (v) of this AD. For obtaining these sections and supplements of the Bombardier Global Express Airplane Flight Manual – Publication No. CSP 700-1, use Document Identification No. GL 700 AFM-1.

(ii) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global Express Airplane Flight Manual – Publication No. CSP 700-1, Revision 109, dated August 16, 2021.

(iii) Supplement 3, Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global Express Airplane Flight Manual – Publication No. CSP 700-1, Revision 109, dated August 16, 2021.

(iv) Supplement 5, Improved Climb Performance, of Chapter 7 – Supplements, of Bombardier Global Express Airplane Flight Manual – Publication No. CSP 700-1, Revision 109, dated August 16, 2021.

(v) Supplement 20, Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global Express Airplane Flight Manual – Publication No. CSP 700-1, Revision 109, dated August 16, 2021.

(vi) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021.

Note 7 to paragraph (j)(2)(vi): This note applies to paragraphs (j)(2)(vi) through (x) of this AD. For obtaining these sections and supplements of the Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, use Document Identification No. GL 700 AFM-1A.

(vii) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021.

(viii) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021.

(ix) Supplement 5 – Improved Climb Performance, of Chapter 7 – Supplements, of Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021.

(x) Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global Express Airplane Flight Manual - Publication No. CSP 700-1A, Revision 109, dated August 16, 2021.

(xi) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021.

Note 8 to paragraph (j)(2)(xi): This note applies to paragraphs (j)(2)(xi) through (xx) of this AD. For obtaining these sections and supplements of the Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, use Document Identification No. GL 6000 AFM.

(xii) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021.

(xiii) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021.

(xiv) Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021.

(xv) Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 39, dated August 16, 2021.

(xvi) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022.

(xvii) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022.

(xviii) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022.

(xix) Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022.

(xx) Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements, of Bombardier Global 6000 Airplane Flight Manual - Publication No. CSP 700-1V, Revision 42, dated May 19, 2022.

(xxi) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, Revision 70, dated August 16, 2021.

Note 9 to paragraph (j)(2)(xxi): This note applies to paragraphs (j)(2)(xxi) through (xxiv) of this AD. For obtaining these sections and supplements of the Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, use Document Identification No. GL 5000 AFM.

(xxii) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, Revision 70, dated August 16, 2021.

(xxiii) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, Revision 70, dated August 16, 2021.

(xxiv) Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global 5000 Airplane Flight Manual - Publication No. CSP 700-5000-1, Revision 70, dated August 16, 2021.

(xxv) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021.

Note 10 to paragraph (j)(2)(xxv): This note applies to paragraphs (j)(2)(xxv) through (xxxiv) of this AD. For obtaining these sections of the Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, use Document Identification No. GL 5000 GVFD AFM.

(xxvi) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021.

(xxvii) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021.

(xxviii) Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021.

(xxix) Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 39, dated August 16, 2021.

(xxx) Section 06-03 Take-Off Performance, of Chapter 6 – Performance, of Bombardier 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

(xxxix) Section 06-08 Performance Data for Operation in Icing Conditions, of Chapter 6 – Performance, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

(xxxix) Supplement 3 - Operation on Contaminated Runways, of Chapter 7 – Supplements, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

(xxxix) Supplement 20 - Operations at Airport Elevations Above 10,000 Feet, of Chapter 7 – Supplements, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

(xxxix) Supplement 35 – Operation on Wet Grooved Runways, of Chapter 7 – Supplements, of Bombardier Global 5000 Featuring Global Vision Flight Deck Airplane Flight Manual - Publication No. CSP 700-5000-1V, Revision 42, dated May 19, 2022.

(3) For service information identified in this AD, contact Bombardier, Inc., Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email ac.yul@aero.bombardier.com; Internet bombardier.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on January 24, 2023.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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